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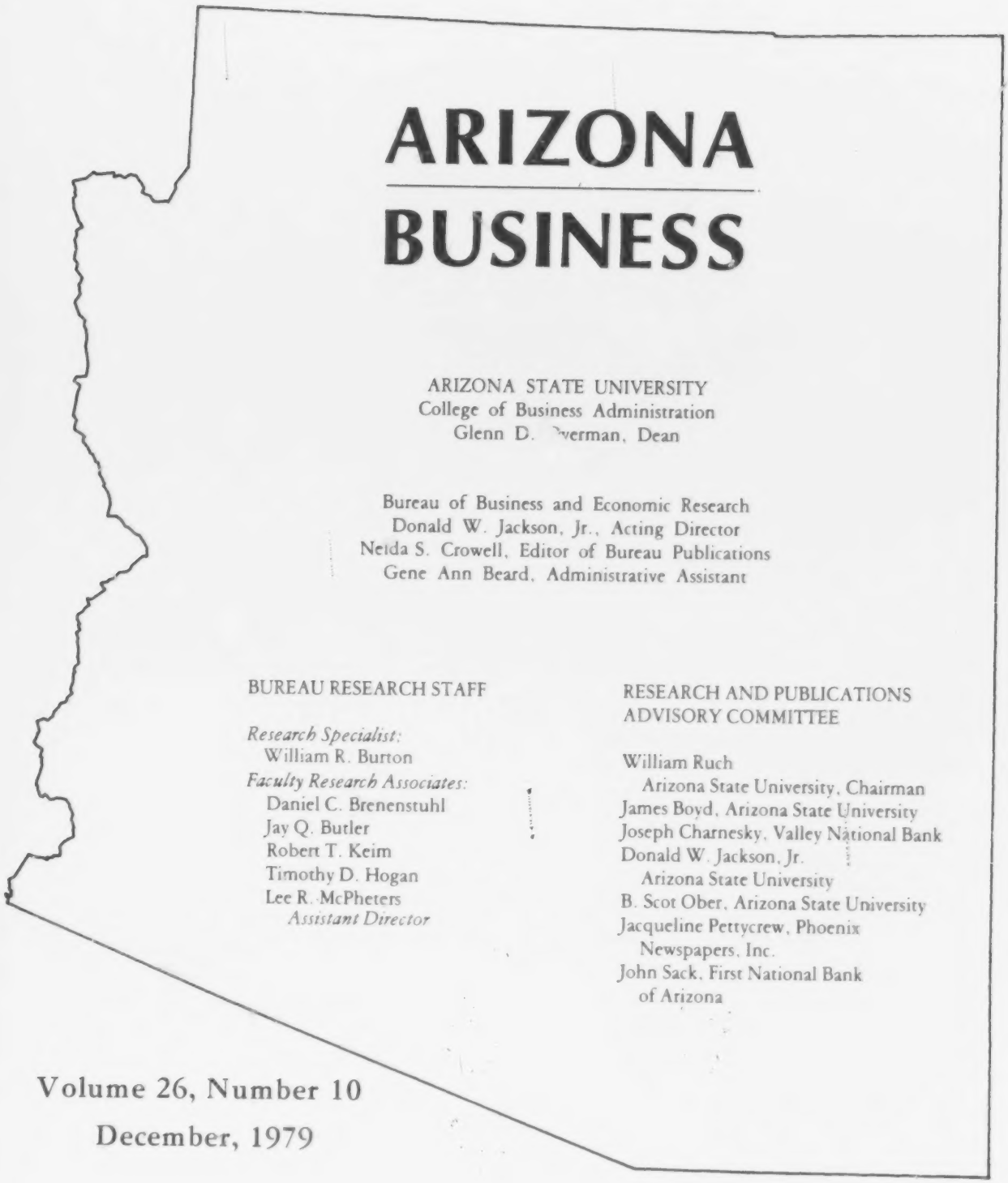

ARIZONA BUSINESS

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Report To The Reader

Looking into the future seems to be one of the great American pastimes. This year, recession is on the minds of many people: Are we in one? Will we have one? Where are interest rates headed? What about inflation?

Each December, several College of Business Administration faculty members from Arizona State University join with representatives from the business community to review the economy of the past year and to forecast state and national economic activity for next year.

The analyses are presented annually at the Economic Forecast Luncheon sponsored by the ASU Center for Executive Development, the Planning Executives Institute, the Phoenix Chamber of Commerce, and the Arizona State Department of Education.

This year's luncheon, moderated by Dr. Harold Fearon, Professor of Management, featured five speakers plus a special welcome from the honorable Bruce Babbitt, Governor of Arizona. Nearly 1,300 people attended this eighteenth annual event and heard the speakers forecast a slowdown in the rate of inflation and a reduction in interest rates. The often-discussed recession should be much milder than the 1974-1975 recession and is expected to peak in mid-1980 with a recovery toward year-end.

Dr. John A. Cochran, ASU Professor of Economics, suggested that on a national basis, the decline and duration of the recession are expected to be somewhat more severe than originally expected, yet not as severe as previous recessions. The inflation rate is expected to fall, but unemployment will rise, and the federal budget deficit will continue its increase.

Dr. Richard Winkelman, Associate Professor of Economics, indicated that real per capita income in the state will increase and a generally robust economy will lead to increased retail sales.

B. Paul Jones of Valley National Bank said the consumer is in the throes of negativism with a decline in planned spending patterns. Jackie Pettycrew of Phoenix Newspapers, Inc., indicated that multiple dwellings will dominate the housing market as construction costs and interest rates continue to deter the prospective home buyer. John R. Welty of Motorola viewed the local manufacturing sector with cautious optimism suggesting that while other areas of the nation are experiencing series effects of a recession, the Phoenix area may even continue a pattern of moderate growth.

National Economic Outlook for 1980

JOHN A. COCHRAN

A five-year cycle of economic activity almost seems to be materializing in the United States. Five years ago — in December 1974 — the United States had record levels of interest rates, double-digit inflation, and the onset of a recession. Once again, the nation has even higher record levels of interest rates, double-digit inflation, and the onset of a recession. The stock market, and most other leading indicators, fell sharply in October 1979. In fact, during both periods real output had already peaked some months earlier, while interest rates and inflation continued to soar. Furthermore, in both cases the OPEC nations had sharply hiked the price of oil, while budget deficits were high, and excessive creation of money had occurred prior to the downturn. Apparently the learning curve is very short, when some of the same unpleasant experiences are repeated within five years!

Although the predicted recession has been postponed until 1980, the inflation rate is expected to fall and interest rates will undoubtedly decline. This article reviews the performance of the nation's economy during 1979 and forecasts some of the national trends that can be expected in the 1980s. The information was presented at the annual ASU Economic Forecast Luncheon, December 5.

John A. Cochran is Professor of Economics in the College of Business Administration, Arizona State University.

Although some characteristics of periods around the time of economic downturns seem to be uncomfortably similar, there are also some differences. For one thing, the unemployment rate in November, 1974, had already risen to 6.5 percent from the low rate of 4.8 percent a year earlier. This time the unemployment rate is around 6 percent, which is about where it has been for the past year. The inflation rate is higher this time running at a 13.5 percent rate for much of this year, while in 1974 it was slightly above 12 percent. There was commodity market speculation in both cases, but inventories were more uncomfortably high five years ago than they seem to be now.

Interest rates — at least nominal or market interest rates, as opposed to real interest rates after taking inflation into account — are noticeably higher this time. Both three-month treasury bills and long term mortgage yields were slightly above 9 percent five years ago. The prime rate peaked at 12 percent. This time interest rates peaked in November at sharply higher levels. In late October, three-month treasury bills sold to yield just under 13 percent. Mortgage yields in late November were running 13 to 14 percent, while the prime rate peaked at 15¾ percent and was reduced to 15½ percent on November 26 and 15¼ percent on November 27. Treasury bill yields also fell sharply in the auction on November 26 to 11.018 percent for thirteen-week bills from 11.444 percent a week earlier. The twenty-six-week bills yielded 11.022 percent, which was down from 12.035 percent a week earlier.

But in the December 3 auction, thirteen-week bill yields bounced up to 11.927 percent and twenty-six-week bill yields jumped to 11.767 percent. Bond yields also began to decline. Undoubtedly, this time around inflationary expectations were higher and harder to erase, which resulted in higher interest rate peaks. This has been true, though the Federal Reserve has been trying hard since October 6, 1979, to deflate such inflationary expectations.

ECONOMIC DEVELOPMENTS IN 1979

As we expected a year ago, a recession in economic activity began in 1979, but it was a strange recession indeed. In the first quarter of 1979, the expansion in total economic activity virtually ceased as real output of goods and services increased by only 1.1 percent. Then in the second quarter, real GNP fell at a 2.3 percent annual rate. However, in the third quarter, the economy showed surprising strength by rising some 3.5 percent (annual rate), which resulted in real output only 0.3 percent higher than the level of the first quarter and only 1.9 percent higher than a year ago.

Before adjustment for inflation, GNP ran at a seasonally adjusted $2.395 trillion in the third quarter of 1979. New factory orders surged by 3.9 percent in September, while the unemployment rate fell to a 5.8 percent annual rate from 6 percent in August. In October, the unemployment rate rose again to 6 percent. However, machine tool orders rose by 3.5 percent from the previous high of September. October orders were 36 percent higher than a year earlier. Capital appropriations by the 1,000 largest manufacturers rose by 7 percent in the third quarter to $22.5 billion. Actual capital spending in 1979 was expected to be some 20 to 25 percent higher than in 1978, which would be the sharpest gain since 1974. The rate of inflation as measured by the Consumer Price Index, rose by more than 13 percent throughout most of 1979. Bank business borrowing, especially since midyear, has been quite strong. Outstanding consumer credit continued to grow throughout 1979, but generally at a markedly slower pace than had been typical in 1978.

In September, however, installment credit grew by a record $4.45 billion, as auto purchases continued strong. Declines in auto sales in the last quarter of the year, however, should lead to a slower growth in consumer debt. Installment credit grew by a strong 19 percent in 1978 and even in the upsurge of the third quarter of 1979 rose by only 13 percent.

Strong consumer spending has marked the economic upsurge of the past four years, including the rise in the third quarter of this year. This strong growth in consumer installment credit, as well as a slower rise in personal income, has sparked such consumer spending. As recently as October, 1979, personal income still rose by a seasonally adjusted 0.8 percent. But the very low rates of consumer saving, e.g., 4.2 percent in the third quarter of this year, are likely to be replaced in the next several quarters by higher rates of saving and lower rates of borrowing. This, of course, translates into weaker consumer spending. For example, new car sales in mid-November were down 14.3 percent from the year earlier, while auto output was curtailed 26 percent in November from the year earlier. Some closings of auto plants were announced for some weeks in December. Consumer retail spending generally was lackluster in November, which suggested that Christmas sales for 1979, in real terms, might be slightly less than 1978. The consumer, who is buffeted by the winds of inflation and beset by many economic uncertainties, in past periods usually responded by a higher rate of saving. The 1979 performance, hence, is unusual, rather than typical, but more typical behavior may be expected in 1980.

SUMMARY OF OUTLOOK FOR 1980

The predicted recession of 1979 has been partly postponed to 1980. Furthermore, because of its delay and because of the continuing strong inflationary pressures sustained by continued high levels of aggregate spending, the decline and duration of the recession is expected to be somewhat more severe than originally expected. Undoubtedly also, the severity of the economic decline will be aggravated by the sharp tightening in credit initiated by the Federal Reserve on October 6, 1979, i.e. the "Saturday Night Special."

In the week ending November 21, for example, commercial and industrial loans on the books of major New York City banks plunged by $364 million. In the next week ending November 28, such loans tumbled another $411 million. As a result of this new credit restraint, the growth of the money supply moderated significantly in October and November. The short mild recession we expected a year ago is now more likely to be a moderate recession. Instead of lasting only two quarters in 1979, declines in real output are likely until about midyear of 1980. The recovery in late 1980 is then likely to be one of slow growth rather than a sharp rebound. Probably not until 1981 will the economy turn in another really strong performance.

The high inflation rate of 13 percent or more of 1979, however, should fall to about 9½ percent next year. The unemployment rate, currently at 6 percent, should average more than 7 percent in 1980. Because of the rise in unemployment and the anticipated drop in final real sales of goods and services, the federal budget deficit, which was under $30 billion in fiscal year 1979, will rise to nearly $40 billion in fiscal year 1980.

The silver lining to the clouds of 1980 can be found, however, not only in an anticipated drop in the inflation rate but also in marked declines in interest rates. Short-term rates had already peaked by late November, 1979, and long-term rates should have peaked by mid-1980. The decline in mortgage rates, in particular, should provide a welcome stimulus to housing starts in late 1980, which should result in another very good year in residential construction in 1981.

The value of the dollar in foreign exchange markets should also record a substantial improvement in 1980. This will be due to the conversion of a deficit in our balance of payments into a surplus in 1980. (The anticipated deficit of $24 billion in 1979 is already an improvement over the $28.45 billion deficit of 1978.) Part of this improvement will be due to a decline in imports as a result of a fall in output and income in the United States, but another part will be due to a strong performance of American exports of manufactured products and agricultural products. Agricultural products alone rose by some 17 percent in 1979 to a total of $32 billion and should rise by some 18 percent next year to about $38 billion. U. S. merchandise exports soared some 27 percent in the first half of 1979 to a level of nearly $84 billion and should continue to rise strongly the rest of 1979 and throughout 1980.

Thus the first year of the 1980s is viewed with cautious optimism. Although we are currently undergoing a recession, which causes some pain for those workers who are laid off and for those business firms suffering slower sales and profit declines, this periodic correction to the excesses of long periods of economic expansions seems necessary. We have already had six recessions prior to this one in the period after World War II. Two of them in particular, that of 1957-1958 and 1973-1975, were substantially more severe than this one is expected to be. Although the last recession of 1973-1975 had a decline in real GNP of 5.7 percent from the November, 1973, peak to the March, 1975, trough, we expect the decline in the recession of 1979-1980 to be no more than 2.5 percent in real output. This would be less than half the percentage decline of 1973-1975.

WHAT ABOUT THE REST OF THE 1980s?

After the initial difficulties of this first year of the 1980s, a new decade is expected to be quite different in many ways from the decade of the 1970s. In general, a somewhat lower average rate of real growth is expected in the 1980s than in the 1970s. This slower rate of growth will be encouraged by a slower rate of growth in the monetary aggregates brought about by a Federal Reserve that is more conscious of inflationary pressures and lower average federal budget deficits brought about by the same realization. Thus, less inflationary pressures should be evident in this new decade. Undoubtedly inflationary problems will still exist in the new decade — the pricing behavior of the OPEC nations almost guarantees that — but double-digit inflation should be largely replaced by single-digit inflation. Furthermore, we will not need quite the strong growth in real output in the coming decade that we needed in the decade now closing, since the almost frantic growth in the labor force in the 1970s due to the baby boom after World War II and the sharp surge of women into the labor force, should slow down.

Nevertheless it remains true that past expectations in the United States about an ever rising standard of living may have to be reduced somewhat to conform to the economic realities of a world in which various shortages of resources such as oil are becoming apparent. Economics is the science of how man makes choices faced with a scarcity of material resources. Which does the public want — a low, perhaps artificially low, rate of unemployment? or a lower rate of inflation? If a lower rate of inflation is the preferred goal, the public may have to accept a somewhat higher average rate of unemployment and a somewhat lower rate of economic growth in the next decade than many groups have striven for in the 1970s.

One might make a particularly optimistic comment about the 1980s in regard to the problem of inflation. Many observers have noted that in this past decade the growth in labor productivity had been disappointedly low and even negative in the first three quarters of this year. (Manufacturing productivity rose but was more than offset by declines in productivity in other sectors.) This has been variously explained as being due to: (1) a low saving-investment rate, (2) too little spending on research and development both by government and business, (3) too much investment devoted to reducing environmental pollution or increasing worker safety and not enough investment designed to reduce the costs of

producing manufactured products, (4) a marked shift in relative consumer spending since 1955 going much more to service sectors than to product sectors; this has a consequent adverse impact on productivity, since it is more difficult to achieve productivity gains in the service sectors than in manufacturing sectors, (5) the strong inflow of young inexperienced men and women workers into the labor force, who are not as productive as older, more experienced workers, (6) restrictive government regulations, (7) a declining value of the dollar, which makes imports more costly and also often encourages American firms producing similar products to raise their prices.

At least some of these negative factors adversely affecting productivity should improve in the 1980s. For one thing, younger workers will now be more experienced and more productive in the new decade. Improvements in the value of the dollar in foreign exchange markets should reduce inflationary pressures coming from ever higher priced imports. Hopefully, a more widespread understanding by the public and the Congress of the need to stimulate saving-investment will lead to tax revisions designed to encourage higher levels of business investment, which in turn will increase labor productivity. Also a move toward a balanced budget at the federal level would sharply reduce inflationary pressures from that source. In short, the vicious cycle of the 1970s may be replaced by a more virtuous cycle in the 1980s.

CONCLUSION

Of course, we do recognize the possibility of adverse economic and political shocks from abroad, which could cause still further inflationary pressures in the 1980s. Various political regimes in some of the less developed countries in the world seem to be somewhat unstable. Shocks from OPEC, for example, will likely still occur. Even under these conditions, however, a lower rate of inflation can occur at home if the public is willing to accept a lower rate of real growth. This would mean that we the American people cannot try to do more with our limited material resources than can be done and still maintain reasonably stable prices. There will still be "no free lunch" in the 1980s any more than there was in the 1970s. This applies equally to public policies as well as to private markets.

One decade is drawing to a close and another is about to begin. It is hoped that the lessons have been learned in the 1970s of the necessity of applying more restraint in our private and public spending, if the evils of double-digit inflation rates are to be avoided, and that these lessons be applied in the 1980s! Some of the excesses of the 1970s can thus be wrung out by the present decline in the economy. In that event, the 1980s can be a decade of stable but less inflationary growth than the 1970s.

Economic Forecast For Arizona: 1980

RICHARD WINKELMAN

The year 1979 in Arizona has lived up to and even exceeded the optimism expressed one year ago. The number of unemployed workers in Arizona is about the same as last year, but the civilian labor force has shown substantial growth. Consequently, the average rate of unemployment has declined. Arizona's population continued to grow at a rate far in excess of the national rate. This population growth continues as a significant driving force in the Arizona economy. As a result of these favorable population and employment changes, personal income, measured in constant dollars, increased 7 percent, but per capita income, measured in constant dollars, remains virtually unchanged from 1978, a direct consequence of inflation. Additional good news for 1979 is that through the first three quarters, every sector of the Arizona economy experienced a rise in employment with copper mine employment alone increasing over 15 percent from a year ago. The greatest absolute increase in employment occurred in the manufacturing sector, and the smallest occurred in the transportation, communications, and public utilities sector.

While most of the economic indicators show improvement over 1978, the sore spot continues to be the rates of inflation which at the national and local levels greatly exceeded those expected one year ago. The Metropolitan Phoenix Consumer Price Index (CPI) for 1979 will, on an annual average basis, exceed the 1978 CPI by 13 percent, about the same as the national rate of inflation. Several factors account for this rapid inflation. First is the continual expansionary effect of federal government fiscal policy and, for at least the first three quarters, expansionary monetary policy. The other principal factor is the fast expansion of the Arizona economy stimulated by population growth. As a result, tremendous market demand is pushing prices up at record rates. It appears, however, that this pressure has been somewhat mitigated over the second half of 1979.

Optimism prevails in the forecast for the Arizona economy for 1980. Inflation is expected to slow down, real per capita income should show an increase, and population is expected to grow. This report was presented at the annual ASU Economic Forecast Luncheon on December 5.

Richard Winkelman is Associate Professor of Economics in the College of Business Administration at Arizona State University.

1980 FORECAST

The 1980 forecast of the Arizona economy that follows is in two parts. The first stresses the key indicators and their rates of change as tabulated in Tables 1 and 2. These indicators serve as meaningful gauges of economic activity over time. The specified indicators are total and per capita personal income expressed in both current and constant dollars, population, rate of unemployment, the Metropolitan Phoenix CPI as a proxy

for price changes across the state, and the volume of retail sales in both current and constant dollars.

The second part discusses several broad sectors of the Arizona economy and the role they will play in determining the value of the key indicators. For analytical convenience the sectors are divided into two groups. The first group is referred to as *basic* since much of the output of these basic sectors is sold outside Arizona. Given the small local market, it is obvious that Arizona's prosperity rests on the ability of these basic sectors to sell their output outside of Arizona. These basic sectors include mining, manufacturing, agriculture, and tourism. Not all of the output of these sectors is sold outside of Arizona, but the largest proportion is. The second group is the *induced* sectors. The implication of this term is that they depend on the success of the basic sectors in selling their output, thereby determining the level of employment and activity in the induced sectors. These induced sectors are construction; transportation, communications, and public utilities; finance, insurance, and real estate; wholesale and retail trade; various general services; and government.

Not all of the employment and sales of the induced sectors are the result of activity in the basic sectors. Some portion of each induced sector is basic. For example, part of government employment is generated by forces outside of Arizona. Parts of the services sector (restaurants, gasoline sales, etc.) are a direct result of the tourist trade. Therefore, that part of their activity is properly part of tourism; i.e., some part of their business represents sales to non-Arizonans in the same sense that Arizona cotton may be sold to a Hong Kong textile firm.

Before discussing the key indicators and the sectors, it is important to specify the principal assumption on which this forecast of Arizona's economic activity is made — that the national economy will behave in 1980 as indicated by the preceding national forecast.

THE KEY INDICATORS

These indicators are the readily apparent measures of economic well-being such as personal income and the Metropolitan Phoenix Consumer Price Index. The levels that have been attained by each of these indicators over the past several years and their projected levels for 1980 are given in Table 1. The percentage changes in these indicators over the same time frame are given in Table 2.

Personal Income

Personal income is the sum of wages, proprietors' income, rent, interest, and dividends received by individuals plus transfer payments such as social security minus social security tax payments on individual wage income. This serves as the starting point for the computation of personal income tax payments. Personal income is an excellent indicator of a state or region's economic progress, especially when corrected for population change via the computation of per capita personal income. Data on personal income are shown in Table 1. The 1977 and 1978 data are the actual amounts for those years as provided by the Department of Economic Security. The two columns for 1979 show first, the forecast of the value of key indicators made

TABLE 1

THE ARIZONA ECONOMY:
VALUES OF KEY INDICATORS, 1977-1980

	1977 Actual	*1978 Actual*	*1979 Forecast*	*1979 Estimated*	*1980 Forecast*
Personal Income					
Current Dollars (000,000)	$14,943	$17,360	$20,046	$21,000	$24,570
Per Capita	$ 6,321	$ 7,062	$ 7,880	$ 7,976	$ 9,017
1969 Dollars (000,000)	$ 9,585	$10,081	$10,674	$10,786	$11,370
Per Capita	$ 4,055	$ 4,116	$ 4,196	$ 4,096	$ 4,172
Population (000) (Annual Avg.)	2,365	2,458	2,544	2,633	2,725
Unemployment Rate (%) (Annual Average)	8.2	6.1	6.0	5.4	6.5
Metropolitan Phoenix CPI (Annual Avg.)	155.9	172.2	187.8	194.7	216.1
Retail Sales					
Current Dollars (000,000)	$ 9,012	$10,760	$12,230	$13,020	$15,400
1969 Dollars (000,000)	$ 5,781	$ 6,248	$ 6,512	$ 6,687	$ 7,126

Source: Prepared from data provided by the U.S. Department of Commerce; Arizona Department of Economic Security; Valley National Bank; and the Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

TABLE 2

THE ARIZONA ECONOMY:
PERCENTAGE RATES OF CHANGE IN KEY INDICATORS
1977-1980

	1978 Actual / *1977 Actual*	*1979 Forecast* / *1978 Estimated*	*1979 Estimated* / *1978 Actual*	*1980 Forecast* / *1979 Estimated*
Personal Income:				
Current Dollars	16.2	15.0	21.0	17.0
Per Capita	11.7	11.1	12.9	13.1
1969 Dollars	5.2	5.5	7.0	5.4
Per Capita	1.5	1.9	—	1.8
Population	3.9	3.5	7.0	3.5
Unemployment Rate	(25.6)	3.5	(11.5)	20.3
Metropolitan Phoenix CPI	10.5	9.0	13.1	11.0
Retail Sales:				
Current Dollars	19.4	15.5	21.0	18.3
1969 Dollars	8.1	5.0	7.0	6.6

Source: All percentage rates of change calculated from Table 1 except 1979 Forecast column which was reported one year ago.

one year ago for 1979 and second, the current estimate of the value of these key indicators for 1979 based on data available through the first three quarters of the year. Table 2 shows the percentage rates of change in these key indicators for 1978 over 1977, the rates of change forecast for 1979 over the 1978 estimates of one year ago. The third column presents the rates of change in the 1979 estimates over the actual 1978 data. The last column shows the rates of change predicted for 1980 over the 1979 estimates for these key indicators.

Based on the estimates for 1979, personal income in current dollars will have increased by $3.6 billion or by 21 percent over 1978. This compares with the forecast for 1979 of an increase of $2.6 billion (15 percent). The forecasting error is the result of the greater rate of inflation realized in Arizona and the lower rate of unemployment and a greater increase in population. This forecasting error is carried over to per capita personal income where an increase of 11.1 percent was anticipated but a gain of 12.9 percent was realized.

The increase in personal income in terms of 1969 dollars is also greater (7 percent) than the 5.5 percent predicted, but the per capita numbers indicate that there was no change in real per capita income in Arizona. This result follows from the fact that the population for 1979 is a bit greater than anticipated as is the Phoenix CPI. Hence, 1979 has been a year of simply treading water in terms of real per capita well being. Bear in mind that per capita figures are simple averages and that many Arizonans experienced real losses in income while others gained.

For several years prior to 1979, real per capita income was rising in a range between 1.5 and 2 percent. This trend should be reestablished in 1980 with an increase of 1.8 percent and an increase in total real personal income of 5.4 percent. In current dollars, personal income will rise to over $24.5 billion, an increase of 17 percent over 1979. The anticipated decline in the rate of inflation as measured by the Phoenix CPI and the expected return of normal population growth accounts for the real gains anticipated in 1980.

Metropolitan Phoenix CPI

Inflation is a pervasive problem for the American economy. We have a much better measure of inflation in the Phoenix area through the efforts of the Bureau of Business and Economic Research at Arizona State University. The Metropolitan Phoenix CPI is constructed on the same basis as that for the United States as a whole.

In 1976, the Phoenix CPI averaged 145.0. In 1977, it averaged 155.9, an increase of 7.5 percent in local prices. In 1978, the CPI reached 172.2, an inflation rate of 10.5 percent. In 1979, the Phoenix CPI will average 194.7, an increase of 13.1 percent over 1978. This compares with the forecast index of 187.8. The rate of inflation predicted a year ago was a "mere" 9 percent. Much of this increase is accounted for by food and housing. The 197.4 index is based on three quarters of data. Much of the inflation this year occurred in the first half. From the end of the second quarter, 1978, through the second quarter of 1979, local prices rose 14.5 percent. Although the rate of inflation has been declining since July, 13.1 percent still appears to be a good estimate for 1979.

The inflation outlook for 1980 is somewhat better. The forecast is that the Metropolitan Phoenix CPI will average 216.1 over 1980, which calculates to an average rate of inflation of 11 percent with a steady diminution in the rate of inflation over the four quarters. This slowdown in the rate of inflation will result from a slight increase in the Arizona unemployment rate and the continuation of what is now a relatively restrictive monetary policy.

Population

Population growth has long been an important element in Arizona's economic growth. People represent the demand for housing and goods and services in general. At the same time inmigration adds to the pool of human capital available for Arizona employers. Our population growth is also a result of economic growth, as economic progress serves to attract people. Arizona continues to rank as a leader in population growth. However, the 7 percent increase recorded from mid-year 1978 to mid-year 1979 may be a statistical anomaly or a correction of earlier estimates that were too low. The trend rate has been about 3.5 percent which is what is expected for 1980. This means 2,725,000 people in Arizona by mid-year 1980. The decennial census is eagerly awaited to find out precisely what the state's population is.

Unemployment Rate

The estimated average rate of unemployment for 1979 is 5.4 percent, a decline of 11.5 percent from 1978. The average unemployment rate predicted one year ago was 6 percent. The decline in the rate is the result of the continual recovery of the mining sector and the growth in the manufacturing sector. Arizona will have fared better than the national economy in improving the unemployment rate. The slowdown of construction activity in the last quarter, however, will carry over into 1980, resulting in an increase in the average unemployment rate t. 6.5 percent. This will also be affected by some rise in the unemployment rate nationally.

Retail Sales

Retail sales reflect the level of personal income available to people for spending. Retail sales for 1979 are estimated at $13 billion at current prices. This represents an increase of 21 percent over 1978. The forecast prediction was an increase of 15.5 percent in 1979 to $12.2 billion. Much of the difference is explained by inflation that was greater than anticipated and the greater real increase in economic activity. In real terms, the sales volume reduces to $6.7 billion or a real increase of 7 percent compared to the predicted 5 percent. For 1980, retail sales at current prices will hit $15.4 billion, an increase of 18.3 percent. In constant terms, this will be reduced to $7.1 billion and a real increase of 6.6 percent. Population growth and a generally robust economy will help generate this increase. (Paul Jones of Valley National Bank reports on consumer attitudes and retail sales later in this issue of *Arizona Business.)*

ECONOMIC SECTORS

This section presents a brief summary of 1979 and the 1980 outlook for major sectors of the Arizona economy.

Agriculture

Arizona farmers retain their strong absolute position in the state's economic scheme. Last year marketing receipts were $1.5 billion. Cash receipts should approximate $1.65 billion in 1979 and at least as much in 1980. The employment level in this sector should remain at about 23,000.

Mining

The mining sector of the Arizona economy showed significant recovery during 1979. Employment has increased some 15 percent from a year ago. The recovery of prices bodes well for 1980, but some sluggishness in the national economy will not allow further rapid expansion over 1980. Employment is currently at 20,000 in copper and should stay at that level with minimal change in 1980.

Manufacturing

This sector demonstrated the growth predicted for it one year ago. At the present time employment is up 10.7 percent over a year ago. Significant expansion by major manufacturing firms accounts for much of the growth. In general the strength of the national economy in 1980 should induce strength on the part of local employers. Employment currently is 144,000. A

year from now employment should be at least 155,000, representing a 7.6 percent increase. (John Welty of Motorola presents a more in depth report and forecast on manufacturing in Arizona later in this issue of *Arizona Business*.)

Tourism

The forecast for tourist expenditures in 1979 was in the range of $3.5 to $3.75 billion. It appears that actual expenditures for 1979 will top $4 billion. The good beginning to the current season forecasts well for 1980 when expenditures of $4.6 billion are likely. The direct employment effects of tourism account for about 74,000 jobs. Some increase is expected in 1980. In additon, tourism has a secondary impact on another 120,000 service and trade-related jobs in Arizona.

Construction

Employment in the construction sector increased by over 6,000 during the first three quarters of 1979. There is, however, an obvious slowdown in construction activity during this last quarter of 1979. The combination of monetary policy restraint and inflation has produced higher unit prices and unheard of mortgage interest rates that have hit the 12 percent usury ceiling in Arizona. As a result the state legislature has raised that ceiling, but the higher market rates and lower dollar amounts that residential buyers can qualify for will serve to slow construction activity considerably through 1980. Construction employment is now in the range of 70,000 to 75,000. This should decline at worst by another 10,000 to 15,000 over 1980. (Jackie Pettycrew of Phoenix Newspapers Inc. will provide more information on construction and housing starts later in this issue of *Arizona Business.)*

Transportation, Communication, and Public Utilities

Employment in this sector is currently at 47,000 and grows slowly with the population. As in the past, it will experience slow but steady growth with employment of about 48,000 a year from now.

Wholesale and Retail Trade

This sector is the largest employer in Arizona. Current employment is about 230,000. With the continued growth of tourism and the anticipated increases in personal income, retail sales, and population, this sector will continue to expand and reach an employment figure of about 245,000 one year from now.

Finance, Insurance, and Real Estate

Employment has expanded more rapidly than anticipated in this sector owing to a relatively strong real estate market and population growth, especially earlier in the year. The outlook for next year indicates that no significant gains are anticipated for 1980. Total employment should remain rather stable at the 53,000 level over 1980.

Services

This sector is very much geared to tourism and follows only wholesale and retail trades in the number of jobs provided. Employment in the past year has increased almost 7 percent. Similar gains to a level of 195,000 may be expected over 1980.

Government

The government sector represents the slowest growing sector in the state's economy. Employment at all levels has increased less than 1 percent over a year ago. There is every expectation that this level of growth will be maintained or, perhaps, reduced. Government employment is 195,000, a gain of only 1,500 over 1978. With the decline in school-age population, government employment has reached a plateau. Only severe economic circumstances, not now foreseen, could push government employment beyond the 200,000 level over the next few years.

SUMMARY AND CONCLUSIONS

By many indicators Arizona enjoyed a good year in 1979, but the impact of inflation counteracts a sizable part of the success indicated by high money values. On a per capita basis, economic advance came to a standstill in 1979. This should be altered with a trend line increase in real per capita income over 1980 of about 1.8 percent. Population should continue to grow at the trend rate of 3.5 percent. The unemployment rate will inch up marginally (to 6.5 percent) as will total workers employed. The Metropolitan Phoenix CPI will exceed that of the nation as a whole but the rate of inflation will diminish from 13 percent to approximately 11 percent in 1980. Next year should be a reasonably good one but all of the uncertainities with respect to energy and international crises leave so much up in the air that this forecast must be shrouded with qualifications. However, if the most optimistic scenario prevails, 1980 should show the forecasted indications.

Economic Trends In Arizona for 1980

THREE VIEWS OF THE FUTURE

THE ARIZONA CONSUMER

B. Paul Jones
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Last year, a month before the 1978 Arizona State University Economic Forecast Luncheon, joint actions were initiated by the Federal Reserve and the United States Treasury. The measures were designed to arrest a collapse of confidence in American economic policies — policies which were resulting in rapid increases in the cost of living domestically, and continuous deterioration in the value of money at home and in its exchange value abroad. In the November 1, 1978, initiatives, the Federal Reserve increased interest rates by one full percentage point and sterilized $3 billion of bank reserves. The Treasury mobilized $30 billion of reserves to support the dollar. The President declared his support and his intention to work to reduce the excesses of federal spending and federal deficits. The markets of the world responded favorably, and most observers agreed that time had been bought, perhaps as much as a year, during which reforms could be made.

Unfortunately, fundamental reforms were not undertaken. Federal spending continued to rise, albeit more slowly. Federal deficits continued. Inflation worsened as Federal Reserve policies encouraged monetization of the debt, and as the money supply rose excessively. By September, 1979, the rate of inflation had increased over 13 percent, and by late September the markets for securities and for the U.S. dollar were crumbling. The markets for precious metals and for commodities were gapping on the outside, as holders of dollars sought refuge from dollar deterioration.

By the first week in October, a genuine flight from the dollar was in progress. On Saturday, October 6, the Federal Reserve once again was forced to take action. Interest rates were increased dramatically. Lending for speculative purposes was declared undesirable. Other bank lending was discouraged by increasing reserves required for banks taking funds from money market sources. Policies under which the Federal Reserve influences money supply through open market operations were changed. The Federal Reserve declared its intention to control the availability of bank reserves, rather than interbank interest rate. An administration made reluctant by reelection challenges was compelled to acquiesce the policies designed to slow economic growth and inflationary pressure.

During the annual ASU Economic Forecast Luncheon on December 5, three prominent local business people expressed their views on various facets of the Arizona economy. This article presents the remarks of the three participants with respect to the consumer's view of the future, the Metropolitan Phoenix economy, and the economic outlook for manufacturing.

Last year the 1978 Survey of Consumer Attitudes and Buying Intentions was taken *before* the monetary initiatives of late 1978. The survey indicated "the outlook for 1979 is not as favorable (as the banner year of 1978)." For the Arizona consumer the survey reflected some deterioration in consumer attitudes and moderation in buying intentions. As a result, we looked for some slowing in consumer spending in 1979, particularly in the last half of the year. Recent data are showing a slowing trend, yet overall, 1979 has been a year of strong growth in the state.

This year the Behavior Research Center conducted the survey for The Valley National Bank *after* the more restrictive monetary policies were announced. Interest rates had increased sharply, driving the prime rate to over 15 percent, but the full effects of the policy changes had not been felt in terms of limiting the availability of credit to borrowers. In the current survey, certain of the attitudes reported may have an important influence on buying intentions. An exceptionally low 3 percent of the respondents feel that the U.S. economy has improved over the past six months, and 72 percent feel that the economy has worsened. Only 9 percent think that the economy will improve over the next six months, and 63 percent look for it to deteriorate.

Expectations of further price increases are a dominant attitude. Eighty-five percent expect prices to increase, or increase sharply, over the next six months.

Attitudes toward wages, job opportunities, and family incomes continue to be relatively favorable. Eighty-five percent expect wages to increase or remain the same. Sixty-six percent think that jobs will be as readily available, or that there will be more jobs in the next six months. Residents of Tucson were more optimistic than those in Phoenix, perhaps reflecting the new plant openings in Tucson. Ninety-five percent of those surveyed expect family incomes to remain the same or to improve in the coming year, and 80 percent look for a family financial situation as good or better than now within the coming year. In Arizona, as elsewhere, the ravages of inflation are being shown in attitudes toward savings. Those who think that saving is as important as it was a year ago have declined from 60 percent in the third quarter survey to 54 percent in the latest survey.

Consumer concerns about the national economy are dominated by inflation, with two out of three comments focusing on inflation. Worries about taxation, government waste, and deficit spending continue to grow. At the state level, complaints about low wages and high taxes continue to swell.

The attitudes revealed by the survey are generally negative, and those attitudes are reflected in declining overall past and planned purchasing patterns, particularly in the automotive, household goods, and home improvement categories. Planned purchases of homes fell from 12 percent to 9 percent, a percentage that may shrink further, given current problems with interest rates, credit availability, and interest rate ceilings.

The findings of the latest Survey of Consumer Attitudes and Buying Intentions are corroborated by the statistical evidence. Inflation has been ravaging incomes. Although wages have increased in 1979, inflation has risen at a faster rate. Therefore, real wages have fallen throughout the year. Consumer debt burdens have risen to record high levels. Household liquidity has been drawn down. Worries about gasoline and fuel availability and prices are only adding to the consumer concerns.

The consumer appears to be reacting quite logically to negative fundamentals and has begun to retrench. With recession the most likely of the prospects of 1980, the process of repairing the consumer's position should require a number of months to complete. Consequently, we anticipate further slowing in the rate of growth of consumer spending in Arizona.

With the consumer accounting for two-thirds of total spending, Arizona's growth should slow in 1980. But, as indicated by the accompanying presentations, the Arizona consumer, and the Arizona economy should outperform the nation as a whole.

METROPOLITAN PHOENIX ECONOMY

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I have been charged with bringing you up to date on the economic changes over the past year for the metropolitan Phoenix area, with particular regard to the housing market and what we expect in 1980. Just twenty-six days remain in this final year of the seventies, and it is exciting and challenging to try to foresee what 1980, and, eventually, the rest of the next decade will bring. This article discusses the economic changes over the past year for the metropolitan Phoenix area with particular regard to the housing market and what is expected to happen in 1980.

This past fall, Phoenix Newspapers contracted with Scarborough Research, a New York research firm, to

conduct a consumer study of the metropolitan Phoenix market. Working in conjunction with principals of the Scarborough firm, a questionnaire was designed and administered to a random sample of 2,000 metropolitan Phoenix households by telephone. Since 93 percent of the area's residents have phones, the data can reasonably be projected over the entire county.

An examination of the basic demographic data verified both the quantity and the quality of the Phoenix area's growth rate over the past year. Newcomer households, those who have moved here within the last 12 months, comprise 12 percent of the total. That figure, applied to the current estimate of households, reveals that about 69,000 are newly arrived.

Median household income for the total area is $19,695, but this may be a little on the high side, reflective of the slightly more upscale demographics of telephone versus nontelephone homes. The median educational level remained at 12.9 years, while households without children under 18 seem to have shown a slight increase, at 56 percent.

According to Valley National Bank, Phoenix retail sales for the first nine months of this year rose to $5.7 billion, a gain of 17.7 percent over the same period in 1978. A slowdown in the economy seems to have begun nationally in October, and the effects will probably be felt locally to some extent. Even with that in mind, however, the year-end will see total retail sales reaching the $7.5 billion mark — a healthy figure for our highly competitive retail market.

Calculating the net increase in households for the Phoenix area from the third quarter report by the Maricopa County Housing Study Committee, it was found that a net gain of 41,000 households was posted, an increase of 7.7 percent for the year. The metropolitan total of 574,000 households includes, as always, both permanent residents and less-than-year-round dwellers who are counted elsewhere by the U.S. Census. Total population is now estimated to be 1,554,000, a gain of 91,000 over the preceding year.

Although Phoenix Newspapers will not be publishing *Inside Phoenix* next April, other printed material on our market will be released next spring including a general information brochure, covering key economic factors and growth components such as those just mentioned.[1] Data from the Scarborough study on travel, major shopping centers, drinking and dining out, fashion, and automotive ownership, as well as all demographics, will also be released in printed form.

The report will include current employment information in the update booklet, using December figures as in the past. Today, the most recent information available is from the Arizona Department of Economic Security's (DES) October report. It stated that the unemployment rate for that month stood at 4.7 percent, favorably comparable to the U.S. average of 6.0 percent. Some very heartening remarks were included in the text of the DES report: "The October employment figures are here, and they don't read recession in Arizona . . . During the first eight months in 1979, department stores' sales rose about 20 percent in Maricopa and Pima counties. Of the 250 largest metropolitan areas in the United States, only one other approached that performance. The national average was 11 percent." But, on a more sobering note: ". . . The predicted downturn has started in construction after no growth during the past six months. Further losses should be anticipated during the next six months, but a slump similar to 1974 and 1975 is unlikely. Residential units are not in oversupply, and demand is still strong."

Housing

One year ago, it was projected that 35,000 residential building units would be permitted in 1979. The first ten months of this year, 30,596 units have been permitted — so unless November and December bottom out completely, the Phoenix area should realize a total quite close to the original estimate.

Multiple permits showed considerably more strength than anticipated, though. In 1978, just one-third of the total number of units were apartment or townhouse permits, while this year the ten-month figures indicated that 43 percent were multiples, 57 percent singles — a ratio that has not occurred for five years and more.

Looking ahead through 1980, the first half of the year will be soft, but pent-up demand will create an excellent second half. The supply of vacant units is at an extreme low; considering all types of dwellings, including mobile home pads, 15,000 to 16,000 vacant units exist. In no way can that relatively low number accommodate the growth expected again in 1980. At least 30,000 new residential units will be needed next year in order to satisfy the needs of both newcomers and new family formations of current residents. Multiples will once again account for more than 40 percent of all permits, since ever rising construction costs and the high cost of mortgage money deters some families from making a home purchase — particularly those in the first-time-buyer category.

Conclusion

Top national economists are generally in agreement on both the length and depth of the current recession — it will be of short duration, probably tailing off by next summer, and not as severe as the mid-70s recession. Interest rates are predicted to come down fairly early in 1980, easing the mortgage-credit crunch. Keep in mind, it *is* an election year, traditionally a time where every effort is made to shore up the economy.

Metropolitan Phoenix, as well as most other parts of Arizona, will not feel the pinch of recession as much as other slow-or-no-growth areas of the nation because of this area's continuing high rate of growth and generally effervescent economy. Recent U.S. Census projections place the Phoenix metropolitan area in the number two spot in rate of population growth by the end of the eighties, surpassed only by the Fort Lauderdale area. Perhaps as the next decade progresses further, adjustments will be made to that estimate and this area will move into the number one position.

Residents of the Phoenix area must continue to work together as a goal-minded community — not just growth for the sake of the numbers, but positive, strengthening growth. Each person must work, individually and collectively, to help eliminate the problems of a rapidly burgeoning metropolis. The Phoenix area has allowed itself to slip into a position where businesses are considering moving from the area, and others taking a long hard look at the prospect of establishing their company here. The area must have industry support to supply jobs for our inmigrating households, or that healthy, low unemployment rate will zoom upward and out of sight.

[1]Phoenix Newspapers is taking a new direction in the area of marketing and market research. Current plans call for the Consumer Survey and its ensuing publication, *Inside Phoenix*, to be implemented every other year instead of annually, as in the past. In the interim years, Phoenix Newspapers will commission another type of major market study, geared to position Phoenix as a dynamic, cosmopolitan city in the eyes of Midwest and Eastern Seaboard skeptics.

ARIZONA'S MANUFACTURING OUTLOOK

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During 1979, Arizona's manufacturing community continued to solidify its position as the largest and fastest growing segment of the state's economy.

The ensuing statistics resulted from a survey of more than twenty of the largest industrial employers in the state. Taken as a whole, the numbers indicate that 1979 is turning out to be a record year for manufacturing, and that 1980 — from our present vantage point in time — is being viewed as another year of solid growth for the manufacturing community, tempered only by an attitude of cautious optimism that prevails among all those surveyed.

Considering all of the present talk about a recession, the current crisis taking place in Iran, inflation, energy shortages, and a number of other subjects that tend to make people uneasy, the responses to the survey were very encouraging.

On the subject of order shipments, in 1978 the companies that responded to the survey shipped nearly $2.3 billion worth of products to customers around the world. This year, the total rose to nearly $2.9 billion, an increase of 27 percent. For 1980, the same companies are anticipating a climb to the $3.5 billion level. This amounts to an increase of more than 20 percent over the 1979 total. That's down about 6 percent from this year, but still a very healthy increase.

Among the companies responding, three take top honors for anticipating a sales growth next year of 38 percent or more. Four companies believe their sales will grow by 20 to 25 percent, while only three companies indicated any decline in expected sales. All of the other companies anticipate shipment increases ranging from 5 to 15 percent.

In the order backlog category, the level grew rapidly during 1979, and that growth is expected to moderate somewhat next year. In 1978, the year-end backlog level reached just about $2 billion. That is climbing to just over $3 billion this year, an increase of 50 percent. For 1980, the backlog is expected to climb to just over $3.5 billion, a further increase of about 18 percent.

In employment, the same trend exists. When Jack Marinick presented the manufacturing forecast last year, he stated that whoever would be giving the forecast this year would be representing about 50,000 of the state's men and women in industry. His projection came very close. Employment represented by our survey group totaled more than 49,000 workers, an increase of more than 18 percent over last year's level. For 1980, those companies anticipate adding more than 6,000 new workers to the payroll, bringing the employment total to more than 55,000. That's an increase of 13 percent over this year. I hasten to point out that the total manufacturing employment is somewhat higher than the numbers I am citing, since the survey obvously does

not include every industrial employer in the state, nor does it include some of the newcomers in both Phoenix and Tucson. These new employers will have an appreciable impact on these numbers beginning in 1980 and should certainly be included in future surveys.

Shipments for foreign export by the survey group also continued to grow during 1979. In 1978, the dollar value of goods produced in Arizona and exported to foreign markets totaled nearly $550 million. This year, exports have increased by more than 23 percent, and total about $674 million. Next year, the survey group is anticipating exports of more than $810 million for an increase of just over 20 percent.

It is relevant to note the consistency of the projected growth statistics provided by the companies surveyed. In all four categories — shipments, backlog, employment, and exports — almost all of the companies reported fairly large increases over last year, and they expected the increases to moderate somewhat next year. This is a very encouraging sign. In reviewing the data collected by Jack Marinick in both 1977 and 1978, it is easy to see that the state's manufacturers have been conservative in their forecasting, and I sense that they are equally as conservative this year.

The main reason for this conservatism — and this is especially true in the electronics industry, by far the largest segment of our manufacturing industry, — is that people have been anticipating a recession for the past two years now. In 1977, it was believed that 1978 would be a down year. It wasn't. In 1978, people were convinced that 1979 would be the down year. Again, as the statistics indicate, it wasn't. Both years, in fact, established new records in all categories for the Arizona manufacturing community.

For 1980, the same degree of cautious and conservative optimism is being adopted and it is possible that this year our projections will prove to be more in line with what will actually happen. Along with a growing number of recognized economists and economic forecasters, many people are beginning to agree that this nation is indeed in the early stages of a recession; that it will be relatively mild; and that it will probably last through the first three quarters of next year.

If that scenario does take place, the survey response indicates that Arizona may come through it all with far less negative impact than other parts of the country. In fact, this area may even continue to grow at a moderate rate, while other major manufacturing areas suffer a decline.

The state's manufacturing industry is in a much better position today than it was when we were facing the recession of 1974-1975. It is larger, and it is much more diversified. This is especially true in the electronics industry. Over the past several years, the base of our local electronics industry has broadened considerably, and the area is attracting a good mix of small, medium, and large companies who are active in all phases of the electronics technology, ranging from semiconductor components to a wide variety of electronic end-use equipment. Given the quickly growing pervasiveness of electronics in every element of our society and the rapid emergence of huge new markets for the electronic products manufactured here in Arizona, it is expected that the industry will continue to grow not only next year, but for many years to come.

Arizona is well on the way to becoming a major, if not *the* major, electronics capital of the United States. During the 1980s the so-called Phoenix-Tucson corridor will surpass the San Francisco Bay area and the Boston area as the recognized center of electronics technology, and its diversity will make it the largest and strongest segment of the state's economy.

Certainly it behooves the economic, business and political leadership, at both the state and local level, to encourage the continuing development of the manufacturing industry. Unlike some other major segments of our economy, manufacturing provides a wide variety of benefits for a great number of people. Manufacturing can and does provide a broad, well-paid base of employment for a growing number of our residents. More importantly, it provides a wide variety of job levels, ranging from entry level positions, to skilled craftsmen, to a large number of people with an extremely high level of education and experience in scientific and technical disciplines.

Also, since most of what is manufactured in Arizona is not sold locally, but rather exported to other states and other countries, manufacturing brings into Arizona a great deal of revenue, much of which is spent locally for a wide variety of goods and services.

Certainly, people involved in the manufacturing industry have concerns about the prospects in the future, and some of the survey respondents took the time to share them.

Like other businesses, many manufacturers are vitally concerned about the over-regulation of business by the government, and its resultant cost. Some are concerned about the future availability — and the cost — of water and power, which is certainly a key factor in our future growth.

Most are concerned about the impact of the staggering levels of inflation, which makes it extremely dif-

ficult to keep wages increasing proportionately, and also affects the industry's ability to finance future growth.

Some manufacturers are concerned about growing shortages of certain materials required in the manufacturing process; yet others are concerned about the growing shortages of engineers and other technical talent who are vital to our future.

All are concerned about taxes and are watching the current special legislative session on taxation with great interest. People in manufacturing hope that what comes out of this session is the equitable distribution of an intelligently arrived at tax burden that is shared by all qualified Arizona citizens, both corporate and private.

Despite these concerns, there is obviously reason for optimism about both the near-term and long-term outlook for Arizona's manufacturing industry. During the past twenty years, manufacturing has become an important segment of the state's economy. With a little bit of luck, and hopefully with the improved understanding of the importance of manufacturing and encouragement by our legislature and by our state and local leadership, manufacturing will be able to continue growing and providing economic contributions that benefit every resident of the state.

The Arizona Business Scene

Arizona Cotton: A Record Year

Cotton historically has been Arizona's premier cash crop; nevertheless, a surge in production and value over the last five years has been one of the more dramatic events in recent state agricultural history. The 1979 crop appears to be headed for a record half-billion dollar harvest, with total production and value up substantially over any previous year. The 1979 crop should lift the state above Mississippi for the first time, and put Arizona into the "Big Three" of cotton producers along with Texas and California. The shift of cotton production from the Deep South continues, with the West and Southwest now accounting for about three-fourths of total United States production.

From a handful of experimental plantings in 1901 and 1902, total commercial acreage rapidly climbed to 46,000 acres in 1917 and 100,000 acres in 1918. Acreage generally increased into the World War II period, and then sharply peaked at 680,000 acres in 1952 and 695,000 in 1953. U. S. overproduction, competition from synthetic fibers, and falling prices finally resulted in federal controls and Arizona acreage dropped to an average of 350,000 acres from 1954 to 1973. Most acreage controls have been off since the 1974 crop, and cotton plantings in Arizona have rapidly moved upward, as presented in Table 1. An estimated 657,800 acres are currently being harvested for the 1979 crop. Cotton is heavily concentrated in the irrigated, lower desert areas. Acreage by county for the 1978 crop is displayed in Table 2.

Arizona cotton consists of two main types — medium and long staple Upland Cotton and extra-fine, extra-long staple American Pima Cotton. Much of the Upland Cotton crop is exported, while American Pima Cotton is widely used in the domestic thread market.

TABLE 1

ARIZONA COTTON ACREAGE
(Planted acres)

Year	*Upland Cotton*	*American Pima Cotton*	*Total Cotton*
1979*	615,000	42,800	657,800
1978	540,000	34,300	574,300
1977	517,000	42,400	559,400
1976	341,000	30,300	371,300
1975	269,000	30,100	299,100
1974	392,000	34,700	426,700
1973	276,000	34,000	310,000
1972	273,000	41,300	314,300
1971	242,000	44,500	286,500
1970	243,000	33,100	276,100
1950-69 average	368,000	34,000	402,000

Source: Arizona Crop and Livestock Reporting Service.

*1979 estimated acreage for harvest.

Yields of Upland Cotton increased from a few hundred pounds per acre in the first quarter of this century to 1,000 pounds per acre by the mid-1950s. One exception was the two record-acreage years of 1952 and 1953 when Upland Cotton yields averaged only 692 and 766 pounds per acre, respectively. The length of the cotton production season has been shortened due to a number of factors, including insect problems and increasing

production costs, resulting in yields of Upland Cotton that have remained at about 1,000 pounds per acre over the last twenty-five years. The Arizona Crop and Livestock Reporting Service currently estimates yield for the 1979 Upland Cotton crop will average 1,015 pounds per acre. Yields of extra-fine American Pima Cotton are generally less than Upland, with the 1979 Pima crop expected to average 740 pounds per acre.

TABLE 2

ARIZONA COTTON ACREAGE
BY COUNTY — 1978
(Planted acres)

County	*Upland Cotton*	*American Pima Cotton*	*Total Cotton*
Maricopa	233,000	5,400	238,400
Pinal	145,500	7,300	152,800
Yuma	95,000	7,300	102,300
Cochise	29,500	3,200	32,700
Graham	15,000	8,600	23,600
Pima	17,000	2,500	19,500
Mohave	3,800	—	3,800
Greenlee	1,200	—	1,200
Arizona	540,000	34,300	574,300

Source: Arizona Crop and Livestock Reporting Service.

The near record acreage of 1979 is due to a number of factors, including continued absence of acreage restrictions and anticipated good returns. In addition, the heavy rains of the fall of 1978 reduced fall plantings of small grains which left land available for additional cotton plantings in the spring. Although 1979 acreage is slightly below the 1952-1953 peak, yield per acre will be well over that of the same two years, resulting in higher total production. The rapid expansion of cotton acreage undoubtedly will bring some production and management problems, and a leveling off or short run decline in acreage is likely.

Cotton is grown for two products — cotton lint and cotton seed. Cotton lint has a variety of uses including clothing, thread, household goods (sheets, blankets) and industrial goods (bags, fabrics, etc.). Cotton seed is processed into cottonseed oil, cake and meal, cottonseed hulls, and linter (the fibers and fuzz that escape removal in ginning). Cottonseed oil is widely used for margarines, soap, and paint. Meal or cake is a high protein livestock feed, hulls are used for livestock roughage and linter for mattress and furniture fillers. Another by-product, cellulose, can be used in the production of paper, gunpowder, film, and in many other products.

Although average prices for Upland Cotton lint have risen from 28 cents a pound in 1970-1973 to 60 cents a pound in 1976-1978, net profit to the grower has not jumped at the same rate since costs of production have also climbed rapidly. On the positive side, sharply increasing raw material prices for synthetics may result in an improved competitive position relative to man-made fibers over the longer run.

An increasingly important component of the cotton industry is certified seed production. The warm, dry Arizona climate is particularly well suited to the growing of cotton for seed, much of which is subsequently shipped to growers in the southern states. Certified seed is obtained from approximately 60,000 acres of the state's cotton crop.

Total value of the 1979 cotton lint and seed crop may be as high as $490 million, up from $367 million for the 1978 crop. Historical value data are presented in Table 3. Arizona cotton is a large industry that includes an estimated 1,200 farmers, 130 gins, and a number of oil mill operators. In addition, numerous other firms provide a wide range of related goods and services including farm implements, seed, fertilizer, pesticides and defoliants, and consulting services.

TABLE 3

VALUE OF ARIZONA COTTON
(millions)

Year	*Value of Lint*	*Value of Seed*	*Total Value*
1979*	—	—	$490.0
1978	$321.0	$45.9	366.9
1977	315.8	33.4	349.1
1976	281.6	36.4	318.1
1975	160.4	24.8	185.2
1974	226.5	64.5	291.0
1973	146.7	31.3	178.0
1972	94.4	14.0	108.4
1971	75.8	13.3	89.1
1970	58.3	12.0	70.3
1950-69 average	123.3	17.1	140.4

Source: Arizona Crop and Livestock Reporting Service.

*1979 estimated total value by Dr. Robert Firch, University of Arizona.

Despite strong competition from synthetic fibers and rising costs of production, cotton has continued to be Arizona's dominant crop, far outdistancing the cash value of other important crops such as vegetables, hay, and citrus. As the state enters the decade of the 1980s, cotton can be expected to continue its key role in the Arizona economy.

A Survey of Arizona Business Conditions

HAROLD FEARON

While the signs of a slowdown in Arizona's economic growth rate became more evident, modest growth continued in November, according to results from the monthly business survey of the Purchasing Management Association of Arizona. All economic indicators were on the plus side, although the rate of increase on both the new order and production indicators was the lowest so far this year. Employment continued to expand, and inventories appear to be well under control. Unfortunately, the moderation in the price increase rate evident in the last few months was of short duration, and prices moved up in November at an alarming rate.

The purchasing business survey now is in its eighteenth year of consecutive monthly reporting on the current health of the Arizona economy. Data are gathered through a questionnaire sent at the close of each month to purchasing managers around the state, asking them to indicate the direction of economic activity in the month just ended — higher, unchanged, or lower. Since these purchasing managers deal daily with the forces of supply and demand, they are in a prime position to provide timely and accurate information on current economic trends.

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Prices paid for major purchased items went up again in November, and at a very high rate. Higher prices were reported by 70 percent of the purchasing managers; 30 percent said prices were unchanged; and no one paid lower prices in November than in October. Unfortunately, the three consecutive months of moderating rates of price increase did not continue into November, showing that the inflationary pressures remain strong and the much awaited drop in the inflation rate has not yet been realized. As stated last month, while the high interest rates resulting from the Federal Reserve action to restrict the money supply probably will reduce the overall inflation rate, this will be a long-term effect.

Delivery time on shipments from vendors stretched out again in November, and at about the same rate as in the previous month. Longer delivery times were reported by 44 percent of the purchasing managers, compared to only 6 percent who received faster service from their suppliers. The net increase rates on this indicator have declined somewhat from the first half of the year, but Arizona firms still are experiencing difficulty in obtaining prompt shipments from vendors. This signals that economic activity still is moving at a strong pace, with no noticeable absence of business on the part of suppliers.

Inventory levels of purchased materials went up again in November, but the rate of increase was the

smallest since last June, and inventory has grown at a decreasing rate in each of the past four months. Thirty percent of the firms added to inventory; 25 percent reduced stocks. While this may be interpreted as a result of caution on the part of Arizona firms because of uncertainty as to what the economy will do in the next several months, it also is a healthy sign for the avoidance of any major economic decline. There is no inventory overhang which could plunge Arizona into a major recession.

New orders received from customers remained sluggish in November, with a rate of increase about the same as last month but the lowest in any month of 1979 and the smallest in about three years (since December of 1976). A higher new order rate was reported by 30 percent of the firms, but 24 percent said they booked less new business in November than in October. The rate of Arizona business growth has dropped substantially over the past several months, and it will have the effect of curtailing future growth in production and employment, at least temporarily.

Production went up in November, but at the lowest rate in the last sixteen months (since July of 1978), reflecting the softening of the new order rate. Thirty-four percent of the firms hiked output; 20 percent reduced production. Further declines in the rate of growth in production can be anticipated over the next several months.

Employment experienced a good increase in November, after a major drop in the net increase rate in October. This was the forty-seventh consecutive monthly increase (since December, 1975), which shows the persistence and duration of the current economic upswing. Higher employment was reported by 30 percent of the firms; only 8 percent pared payrolls. The November increase rate, while somewhat smaller than in the first half of the year, shows that the Arizona job market remains strong.

Thus, the Arizona economy continues to grow, but as often happens at the end of a period of rapid growth, the indicators are flashing mixed signals, as a good deal of the steam evaporates out of the upswing. Yet, the growth continues, although at a moderate rate. Arizona will close 1979 at an all-time economic high, with new records registered by all the indicators. While the economy probably will move largely in a sideways direction over the next several months, the plateau is at a very high level, and there is no sign of any impending downturn.

The results of the November purchasing survey are seen in Table 1.

TABLE 1
NOVEMBER PURCHASING SURVEY

Key Indicator	*Percent of Purchasing Managers Indicating Each Response (November compared to October)* *Higher*	*Same*	*Lower*
Prices paid for major commodities	70	30	0
Delivery time from vendors	44	50	6
Purchased materials inventory level	30	45	25
New orders received	30	46	24
Production	34	46	20
Employment	30	62	8

Source: Survey of the Purchasing Management Association of Arizona.

ARIZONA SALES OF ELECTRICAL POWER
By Months
(In millions of kwh)

	Actual *1979*	*1978*	*Percent Change Curren[illegible]h From Same Month Previous Year*
October	2,265.0	2,128.7	6.4

Source: Based on reports from major suppliers.

Arizona Building Permits: Monthly Report

OCTOBER, 1979

CENSUS DIVISION	RESIDENTIAL* Number of Permits	RESIDENTIAL* Dollar Value	COMMERCIAL Number of Permits	COMMERCIAL Dollar Value	INDUSTRIAL Number of Permits	INDUSTRIAL Dollar Value	OTHER Number of Permits	OTHER Dollar Value	TOTAL Number of Permits	TOTAL Dollar Value
APACHE COUNTY	17	418,108	2	4,300	—	—	1	3,000	20	425,408
Eagar	7	286,000	1	4,300	—	—	—	—	8	290,300
St. Johns	3	N/C	—	—	—	—	—	—	3	N/C
Springerville	—	—	1	N/C	—	—	—	—	1	N/C
Unincorporated Apache County	7	132,108	—	—	—	—	1	3,000	8	135,108
COCHISE COUNTY	156	2,336,424	5	373,500	—	—	82	159,227	243	2,869,151
Benson	9	75,380	—	—	—	—	4	2,007	13	77,387
Bisbee	28	133,437	—	—	—	—	3	2,800	31	136,237
Douglas	36	514,771	—	—	—	—	12	11,522	48	526,293
Huachuca City	4	2,365	—	—	—	—	2	9,400	6	11,765
Sierra Vista	42	638,496	4	372,500	—	—	53	115,524	99	1,126,520
Tombstone	—	—	—	—	—	—	—	—	—	—
Unincorporated Cochise County	33	966,200	1	1,000	—	—	8	17,974	42	985,174
Willcox	4	5,775	—	—	—	—	—	—	4	5,775
COCONINO COUNTY	114	2,998,831	22	3,700,002	—	—	44	645,470	180	7,344,303
Flagstaff	35	1,179,116	22	3,700,002	—	—	20	498,702	77	5,377,820
Fredonia	—	—	—	—	—	—	1	500	1	500
Page	7	119,100	—	—	—	—	5	N/C	12	119,100
Unincorporated Coconino County	69	1,644,553	—	—	—	—	13	144,193	82	1,788,746
Williams	3	56,062	—	—	—	—	5	2,075	8	58,137
GILA COUNTY	82	922,104	—	—	—	—	30	39,000	112	961,104
Globe	14	126,200	—	—	—	—	2	2,300	16	128,500
Hayden	1	3,000	—	—	—	—	—	—	1	3,000
Miami	3	2,000	—	—	—	—	—	—	3	2,000
Payson	23	208,646	—	—	—	—	20	31,150	43	239,796
Unincorporated Gila County	41	582,258	—	—	—	—	8	5,550	49	587,808
GRAHAM COUNTY	51	628,805	1	14,000	—	—	5	18,800	57	661,605
Pima	5	99,500	—	—	—	—	—	—	5	99,500
Safford	18	120,950	—	—	—	—	1	13,000	19	133,950
Thatcher	2	55,000	—	—	—	—	4	5,800	6	60,800
Unincorporated Graham County	26	353,355	1	14,000	—	—	—	—	27	367,355
GREENLEE COUNTY	1	1,000	—	—	—	—	—	—	1	1,000
Clifton	—	—	—	—	—	—	—	—	—	—
Duncan	—	—	—	—	—	—	—	—	—	—
Unincorporated Greenlee County	1	1,000	—	—	—	—	—	—	1	1,000
MARICOPA COUNTY	2,284	62,094,666	138	33,265,959	45	16,378,626	2,089	21,167,767	4,556	132,907,018
Avondale	4	102,000	—	—	—	—	8	32,000	12	134,000
Buckeye	3	64,000	—	—	—	—	6	42,300	9	106,300
Chandler	190	3,081,135	2	200,000	1	100,000	244	437,705	437	3,818,840
El Mirage	—	—	—	—	—	—	—	—	—	—
Gila Bend	2	3,700	—	—	—	—	—	—	2	3,700
Gilbert	16	426,150	—	—	—	—	5	42,053	21	468,203
Glendale	102	2,008,240	10	2,344,500	—	—	172	556,669	284	4,909,409
Goodyear	—	—	—	—	—	—	9	24,811	9	24,811
Guadalupe	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Mesa	217	3,729,903	19	3,524,306	2	135,000	277	6,776,986	515	14,166,195
Paradise Valley	10	455,330	—	—	—	—	37	271,891	47	727,221
Peoria	30	649,095	1	18,320	—	—	32	53,661	63	721,076
Phoenix	698	23,254,929	43	18,355,760	29	8,269,826	753	8,162,838	1,523	58,043,353
Scottsdale	203	6,147,821	19	4,523,808	—	—	278	1,637,305	500	12,308,934
Surprise	4	8,600	—	—	—	—	8	4,820	12	13,420
Tempe	69	804,100	16	1,345,700	13	7,873,800	60	478,900	158	10,502,500
Tolleson	9	76,987	—	—	—	—	7	3,440	16	80,427
Unincorporated Maricopa County	703	21,107,335	28	2,953,565	—	—	179	1,061,900	910	25,122,800
Wickenburg	7	91,383	—	—	—	—	7	1,569,124	14	1,660,507
Youngtown	17	83,958	—	—	—	—	7	11,364	24	95,322

Arizona Building Permits: Monthly Report (Continued)

OCTOBER, 1979	RESIDENTIAL* Number of Permits	RESIDENTIAL* Dollar Value	COMMERCIAL Number of Permits	COMMERCIAL Dollar Value	INDUSTRIAL Number of Permits	INDUSTRIAL Dollar Value	OTHER Number of Permits	OTHER Dollar Value	TOTAL Number of Permits	TOTAL Dollar Value
MOHAVE COUNTY	535	5,938,195	16	3,223,909	—	—	66	179,419	617	9,341,523
Kingman City	24	307,719	5	1,555,000	—	—	23	27,100	52	1,889,819
Kingman Area	94	598,918	1	48,000	—	—	2	256	94	647,174
Lake Havasu City	105	2,554,104	6	1,574,637	—	—	23	141,535	134	4,270,276
Lake Havasu Area	35	293,622	—	—	—	—	—	—	35	293,622
Mohave Valley North	154	1,093,472	—	—	—	—	16	10,212	170	1,103,684
Mohave Valley South	59	398,188	3	18,624	—	—	2	316	64	417,128
Dolan Springs	21	191,192	1	27,648	—	—	—	—	22	218,840
Sacramento Valley	30	267,758	—	—	—	—	—	—	30	267,758
Mohave County General	16	233,222	—	—	—	—	—	—	16	233,222
NAVAJO COUNTY	94	1,761,205	11	424,526	—	—	9	3,920	114	2,189,651
Holbrook	5	85,700	1	175,000	—	—	—	—	6	260,700
Show Low	9	169,073	4	46,144	—	—	7	2,920	20	218,107
Snowflake	3	N/C	—	—	—	—	—	—	3	N/C
Taylor	3	172,000	—	—	—	—	1	N/C	6	172,000
Unincorporated Navajo County	64	1,204,878	6	203,412	—	—	—	—	70	1,408,290
Winslow	8	129,554	—	—	—	—	1	1,000	9	130,554
PIMA COUNTY	1,389	18,615,422	55	24,777,135	2	270,000	409	3,394,069	1,855	47,056,626
Marana	—	—	—	—	—	—	—	—	—	—
Oro Valley	5	27,500	—	—	—	—	—	—	5	27,500
South Tucson	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Tucson	281	4,302,496	27	16,721,135	2	270,000	278	2,209,929	588	23,503,560
Unincorporated Pima County	1,103	14,285,426	28	8,056,000	—	—	131	1,184,140	1,262	23,525,566
PINAL COUNTY	73	802,495	6	148,900	—	—	52	80,776	131	1,032,171
Casa Grande	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Coolidge	5	27,442	—	—	—	—	28	13,352	33	40,794
Eloy	3	5,500	—	—	—	—	5	4,693	8	10,193
Florence	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Kearny	1	1,432	—	—	—	—	1	2,500	2	3,932
Mammoth	—	—	—	—	—	—	—	—	—	—
Superior	2	2,150	—	—	—	—	—	—	2	2,150
Unincorporated Pinal County	62	765,971	6	148,900	—	—	18	60,231	86	975,102
SANTA CRUZ COUNTY	19	763,510	—	—	—	—	4	66,205	23	829,715
Nogales	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Patagonia	3	41,500	—	—	—	—	—	—	3	41,500
Unincorporated Santa Cruz County	16	722,010	—	—	—	—	4	66,205	20	788,215
YAVAPAI COUNTY	284	6,773,626	7	620,776	2	66,000	98	355,619	391	7,816,021
Chino Valley	8	210,560	1	7,500	—	—	2	4,500	11	222,560
Clarkdale	1	5,000	—	—	1	60,000	8	6,100	10	71,100
Cottonwood	15	202,930	1	55,000	—	—	8	47,480	24	305,410
Jerome**	2	37,000	—	—	—	—	3	N/C	5	37,000
Prescott	60	639,642	4	508,276	1	6,000	50	166,769	115	1,320,687
Unincorporated Yavapai County	198	5,678,494	1	50,000	—	—	27	130,770	226	5,859,264
YUMA COUNTY	255	4,531,728	4	667,796	—	—	44	795,765	303	5,995,289
Parker	9	274,542	—	—	—	—	3	18,000	12	292,542
Somerton	3	105,000	—	—	—	—	—	—	3	105,000
Unincorporated Yuma County	121	1,815,970	2	126,821	—	—	12	362,196	135	2,304,987
Wellton	2	29,000	—	—	—	—	—	—	2	29,000
Yuma	120	2,307,216	2	540,975	—	—	29	415,569	151	3,263,760
TOTAL Maricopa County, October 1979	2,284	62,094,666	138	33,265,959	45	16,378,626	2,089	21,167,767	4,556	132,907,018
TOTAL Maricopa County, October 1978	3,974	93,631,171	243	35,532,063	49	5,324,100	1,904	14,217,935	6,170	148,705,269
PERCENT CHANGE	- 43	- 34	- 43	- 6	- 8	208	10	49	- 26	- 11
TOTAL Arizona, October 1979	5,354	108,586,119	267	67,220,803	49	16,714,626	2,933	26,909,037	8,603	219,430,585
TOTAL Arizona, October 1978	7,111	138,691,070	388	52,539,556	56	5,565,453	2,661	22,504,318	10,216	219,300,397
PERCENT CHANGE	- 25	- 22	- 31	28	- 13	200	10	20	- 16	—

N/C: Not collected. N/R: No report; data for this month will be combined with data reported for the following month.
*Includes mobile homes. **Includes September and October data.

Arizona New Housing Starts: Monthly Report

OCTOBER, 1979

CENSUS DIVISION	BUILDING PERMITS ISSUED 1* Family	Duplex	3-4 Families	5 or More	Housing Units
APACHE COUNTY	15	—	2	—	23
Eagar	6	—	—	—	6
St. Johns	3	—	—	—	3
Springerville	—	—	2	—	8
Uninc. Apache Co.	6	—	—	—	6
COCHISE COUNTY	56	—	—	—	56
Benson	6	—	—	—	6
Bisbee	—	—	—	—	—
Douglas	8	—	—	—	8
Huachuca City	—	—	—	—	—
Sierra Vista	18	—	—	—	18
Tombstone	—	—	—	—	—
Uninc. Cochise Co.	24	—	—	—	24
Willcox	—	—	—	—	—
COCONINO COUNTY	75	1	—	—	77
Flagstaff	18	1	—	—	20
Fredonia	—	—	—	—	—
Page	4	—	—	—	4
Uninc. Coconino Co.	52	—	—	—	52
Williams	1	—	—	—	1
GILA COUNTY	49	—	—	—	49
Globe	5	—	—	—	5
Hayden	—	—	—	—	—
Miami	—	—	—	—	—
Payson	15	—	—	—	15
Uninc. Gila Co.	29	—	—	—	29
GRAHAM COUNTY	25	—	—	—	25
Pima	3	—	—	—	3
Safford	3	—	—	—	3
Thatcher	2	—	—	—	2
Uninc. Graham Co.	17	—	—	—	17
GREENLEE COUNTY	—	—	—	—	—
Clifton	—	—	—	—	—
Duncan	—	—	—	—	—
Uninc. Greenlee Co.	—	—	—	—	—
	—	—	—	—	—
MARICOPA COUNTY	1,499	27	28	27	2,268
Avondale	4	—	—	—	4
Buckeye	3	—	—	—	3
Chandler	169	1	1	—	175
El Mirage	—	—	—	—	—
Gila Bend	—	—	—	—	—
Gilbert	8	—	—	—	8
Glendale	53	—	—	1	61
Goodyear	—	—	—	—	—
Guadalupe	N/R	N/R	N/R	N/R	N/R
Mesa	167	16	5	1	231
Paradise Valley	4	—	—	—	4
Peoria	17	4	—	—	25
Phoenix	417	3	20	11	667
Scottsdale	132	—	1	7	194
Surprise	1	—	—	—	1
Tempe	15	1	1	1	26
Tolleson	3	—	—	—	3
Uninc. Maricopa Co.	503	2	—	6	863
Wickenburg	2	—	—	—	2
Youngtown	1	—	—	—	1

CENSUS DIVISION	BUILDING PERMITS ISSUED 1* Family	Duplex	3-4 Families	5 or More	Housing Units
MOHAVE COUNTY	234	1	—	3	290
Kingman City	15	—	—	—	15
Kingman Area	31	—	—	—	31
Lake Havasu City	92	—	—	3	146
Lake Havasu Area	4	—	—	—	4
Mohave Valley North	43	1	—	—	45
Mohave Valley South	18	—	—	—	18
Dolan Springs	7	—	—	—	7
Sacramento Valley	15	—	—	—	15
Mohave Co. General	9	—	—	—	9
NAVAJO COUNTY	50	—	—	—	50
Holbrook	1	—	—	—	1
Show Low	9	—	—	—	9
Snowflake	3	—	—	—	3
Taylor	4	—	—	—	4
Uninc. Navajo Co.	31	—	—	—	31
Winslow	2	—	—	—	2
PIMA COUNTY	716	11	7	8	1,244
Marana	—	—	—	—	—
Oro Valley	—	—	—	—	—
South Tucson	N/R	N/R	N/R	N/R	N/R
Tucson	93	11	5	8	614
Uninc. Pima Co.	623	—	2	—	630
PINAL COUNTY	55	—	2	—	61
Casa Grande	N/R	N/R	N/R	N/R	N/R
Coolidge	5	—	—	—	5
Eloy	—	—	—	—	—
Florence	N/R	N/R	N/R	N/R	N/R
Kearny	—	—	—	—	—
Mammoth	—	—	—	—	—
Superior	—	—	—	—	—
Uninc. Pinal Co.	50	—	2	—	56
SANTA CRUZ COUNTY	18	—	—	—	18
Nogales	N/R	N/R	N/R	N/R	N/R
Patagonia	3	—	—	—	3
Uninc. Santa Cruz Co.	15	—	—	—	15
YAVAPAI COUNTY	202	1	—	—	204
Chino Valley	5	—	—	—	5
Clarkdale	1	—	—	—	1
Cottonwood	9	—	—	—	9
Jerome**	1	—	—	—	1
Prescott	21	—	—	—	21
Uninc. Yavapai Co.	165	1	—	—	167
YUMA COUNTY	171	—	—	—	171
Parker	9	—	—	—	9
Somerton	3	—	—	—	3
Uninc. Yuma Co.	85	—	—	—	85
Wellton	1	—	—	—	1
Yuma	73	—	—	—	73
TOTAL, Maricopa Co., October 1979	1,499	27	28	27	2,268
TOTAL, Maricopa Co., October 1978	3,228	22	22	106	4,627
PERCENT CHANGE	−54	23	27	−75	−51
TOTAL, Arizona, October 1979	3,165	41	39	38	4,536
TOTAL, Arizona, October 1978	4,926	35	32	114	6,871
PERCENT CHANGE	−36	24	22	−67	−34

N/R. No report; data for this month will be combined with data reported for the following month.
*Includes mobile homes. **Includes September and October data

Maricopa County Monthly Retail Food Prices

NOVEMBER, 1979

This monthly feature of *Arizona Business* contains food price data for Maricopa County for comparison with data for the United States and selected metropolitan areas. Maricopa County food prices are reported for the month immediately preceding publication; comparisons of food prices among various cities and the U.S. average are made on the basis of earlier months because of the lag in collecting price reports from these other areas.

INTERPRETATION

The Maricopa County Index of Food Consumed at Home increased 0.6 percent in November following a 1.4 percent gain during October. The November index value of 226.3 indicates that county shoppers had to pay $22.63 for a similar basket of foodstuffs that would have cost $10.00 in 1967. This food basket could have been purchased for $20.73 one year ago.

The November gain was a result of increases in the subgroups *Cereals and Bakery Products* (2.5 percent), *Dairy Products* (1.6 percent), *Other Foods* (0.8 percent), and *Fruits and Vegetables* (0.2 percent), which more than offset the decrease in the subgroup *Meats, Poultry, Fish, and Eggs* (-0.7 percent).

Higher recorded prices for most bakery items, particularly white bread (7.2 percent), fresh cake and cupcakes (4.4 percent), and fresh biscuits, rolls, and muffins (3.0 percent) contributed to the jump in the subgroup *Cereals and Bakery Products*. All items in the subgroup *Dairy Products* increased this month. The largest gains were recorded for ice cream (5.8 percent), fresh milk and cream (1.4 percent), and butter (1.1 percent). A rise in the price of condiments (4.1 percent) and noncarbonated beverages (3.6 percent) contributed to the gain in the subgroup *Other Foods*. Mixed changes in the prices of most fresh produce led to the overall increase in the subgroup *Fruits and Vegetables*. Declines in the price of lettuce (-30.7 percent), apples (-6.4 percent), and oranges (-5.7 percent) were more than offset by recorded increases for tomatoes (62.3 percent), bananas (20.5 percent), and potatoes (10.9 percent).

A decline in the subgroup *Meats, Poultry, Fish, and Eggs* was largely due to lower prices for pork and beef items, notably bacon (-8.0 percent), round roast (-5.2 percent), and round steak (-3.1 percent). Poultry prices were also down, particularly fresh or frozen chicken parts (-11.7 percent). These decreases were partially countered by increases for eggs (8.5 percent) and fish and shellfish (3.0 percent).

A comparison of the August Food Consumed at Home Index for Maricopa County with index values for four selected metropolitan areas reveals that the outlays required to purchase a foodstuffs group in August, 1979 (obtainable for an outlay of $10.00 at 1967 average prices) were $22.09 in Maricopa County; $22.79 in Los Angeles-Long Beach; $23.96 in San Francisco-Oakland; $23.35 in Chicago-Northwestern Indiana; and $23.39 in the United States (average).

TABLE 1
INDEX FOR FOOD CONSUMED AT HOME
Maricopa County, United States, and Selected Metropolitan Areas
(Average 1967 = 100 percent)

Group	Maricopa County Nov '79	Maricopa County Aug '79	United* States Aug '79	Los Angeles* Long Beach Aug '79	San Francisco* Oakland Aug '79	Chicago* Northwestern Indiana Aug '79
Food Consumed at Home	226.3	220.9	233.9	227.9	239.6	233.5
Cereals and Bakery Products	215.4	208.9	223.7	227.7	222.9	224.4
Meats, Poultry, Fish, and Eggs	236.0	235.2	230.2	226.0	239.6	234.6
Dairy Products	203.5	195.0	208.6	195.6	198.3	205.2
Fruits and Vegetables	204.3	203.1	237.8	220.1	248.5	237.6
Other Foods Consumed at Home	249.0	238.5	272.8	268.0	288.6	271.9

* Computed from data contained in The Consumer Price Index. U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C.

Note: Index Comparisons between Maricopa County and the other regions show only that food prices in Maricopa County have increased more or less than food prices in the other regions since 1967. The indices cannot be used to determine the actual differences in food price levels between the regions.

Sources: Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cooperative cosponsorship with Valley National Bank.

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_____, "Electrical Power Sales: An Indicator of Change," February, p. 23.

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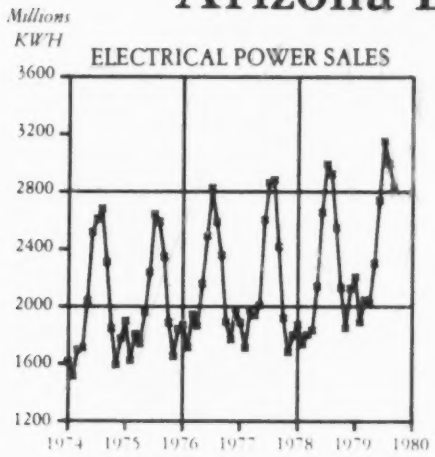

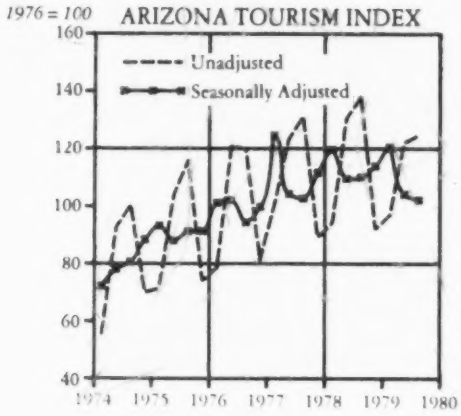

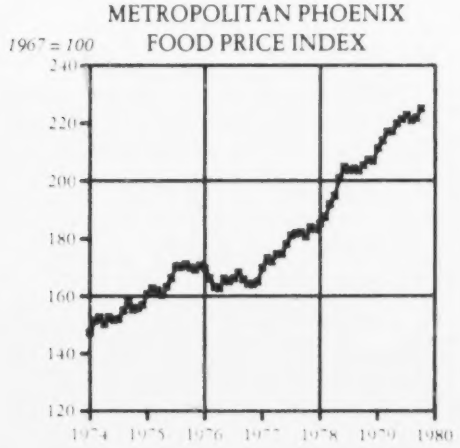

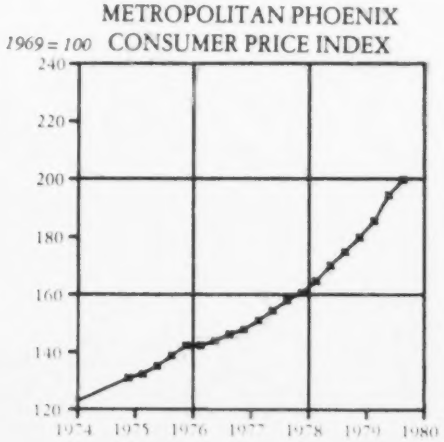

Source: All data compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University